

REMARKS

The Applicant hereby submits the present Amendment and Request for Reconsideration for the above-referenced patent application, entry of which is earnestly solicited, in response to the Office Action mailed on 22 October 2004.

Claims 1-25 were submitted in the original application. By this amendment, claims 1, 2, 4, 5, 6, 7, 8, 9, 12, 14, 15, 16, 18, 19, and 22 have been amended; claim 25 has been canceled. Thus, claims 1-24 are pending in the present application upon entry of this Amendment.

The Applicant respectfully submits that no new matter has been added by the present amendment. Amended claims 1, 2, 4, 5, 6, 7, 8, 9, 12, 14, 15, 16, 18, 19, and 22 have explicit support found in the originally-filed patent application, which includes the specification, drawings, and claims.

In the Office Action mailed on 22 October 2004, the Examiner provisionally rejected claims 1-25 under the judicially created doctrine of obviousness-type double patenting based on copending Application No. 10/848,434. In response, the Applicant has amended claims 1, 2, 4, 5, 6, 7, 8, 9, 12, 14, 15, 16, 18, 19, and 22 of the present application as well as claims of copending Application No. 10/848,434. The Applicant submits that these claim amendments should alleviate the Examiner's concerns regarding any double-patenting issues. In any event, if the Examiner is correct in any continuing provisional rejection under obviousness-type double patenting, the Applicant will file a suitable terminal disclaimer if needed.

In the same Office Action, the Examiner rejected claims 1-25 of the present application based on Papadopoulos (US Patent No. 6,731,751 B1) and Bigelow ("Understanding Telephone Electronics", 3rd Edition, 1997, Pub. Butterworth-

Heinemann; pp. 68-72). In response, the Applicant respectfully submits that the amended claims are allowable over the prior art of record for at least the following reasons.

In a rejection under Section 102 or 103, the prior art references alone or in combination must teach or suggest each and every claim limitation. In the instant case, the prior art of record alone or in combination fails to teach or suggest all of the claim limitations. Also, the Examiner has failed to demonstrate and articulate that the prior art teaches or suggests all claim limitations.

Newly amended claim 1 reads as follows:

1. A cordless telephone-to-sound card interface adapter for providing mobility to an end user during voice communications over the Internet, comprising:

a housing unit;
a hybrid transformer circuit carried and contained within the housing unit;

a telephone jack carried along a side edge of the housing unit for coupling to a cordless telephone system using a telephone cord;

a speaker plug cable which extends from the housing unit and terminates in a 1/8 inch speaker miniplug which is configured to connect with a speaker jack of a computer sound card;

a microphone plug cable which extends from the housing unit and terminates in a 1/8 inch microphone miniplug which is configured to connect with a microphone jack of the computer sound card;

the hybrid transformer circuit including:

a first hybrid transformer having a single coil A inductively coupled to two coils B and C which are formed along the same core;

a second hybrid transformer having a single coil F inductively coupled to two coils D and E which are formed along the same core;

an impedance matching circuit;

a first terminal of the coil C and a first terminal of the coil E coupled to the telephone jack;

a second terminal of the coil C coupled to a second terminal of the coil E;

first and second terminals of the coil A coupled to the speaker plug cable;

first and second terminals of the coil F coupled to the microphone plug cable;

a first terminal of the coil B coupled to a second terminal of the coil D; and

a second terminal of the coil B and a first terminal of the coil D coupled to the impedance matching circuit.

The present invention as defined by the claims (e.g. amended claim 1) relates to a simple low-cost ready-to-use cordless telephone-to-sound card interface adapter. The prior art of record does not teach or suggest claim limitations which relate to the same. For example, the prior art does not teach or suggest “a first hybrid transformer having a single coil A inductively coupled to two coils B and C which are formed along the same core” as well as “a second hybrid transformer having a single coil F inductively coupled to two coils D and E which are formed along the same core” of the present invention. Note that these limitations of amended claim 1 correspond to previous limitations of original dependent claim 8. The prior art also fails to explicitly teach or suggest several additional limitations as well which relate to such an advantageous interface adapter. These limitations include “a housing unit” (element 101 in Papadopoulos is described as an interface 101 not a housing unit); “a speaker plug cable which extends from the housing unit and terminates in a 1/8 inch speaker miniplug which is configured to connect with a speaker jack of a computer sound card” (element 203 of Papadopoulos is merely an output from the card), “a microphone plug cable which extends from the housing unit and terminates in a 1/8 inch microphone miniplug which is configured to connect with a microphone jack of the computer sound card” (element 202 of Papadopoulos is merely an input to the card), and several other limitations.

The Applicant respectfully submits that such limitations are novel and non-obvious over the prior art of record as they relate to a simple low-cost ready-to-use interface adapter. Note that newly amended claim 1 includes limitations which are representative of those in other independent claims.

Regarding the Examiner’s rejections of original dependent claims 6, 8, and 18 (which now closely relate to the newly amended independent claims of the present application), the Examiner fails to demonstrate that the prior art teaches or suggests all claim limitations. Instead of considering each and every claim limitation, the Examiner merely states the following:

Although Bigelow shows a hybrid transformer circuit comprising two transformers having eight coils coupled to an impedance matching circuit (i.e. balancing network) in Fig. 2-13, page 69, without labeling these eight coils as A, B, C, D, E, F, G and H for describing various connections among these coils to generate a desired configuration of the hybrid transformer circuit as claimed in claim 6, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use any configuration for the hybrid circuit in order to accommodate the performance specification of the interface adapter (101) of Papadopoulos subject to circuit, system and design constraints. A similar thing holds for claims 7-10.

Here, the Examiner merely reasons that any circuit utilized in an interface adapter would have been obvious. However, the Applicant respectfully disagrees with this reasoning, the rejection, and the articulation of the rejection. The Examiner in essence ignores the many limitations recited in original dependent claims 6, 8, and 18. If the Examiner is relying on any inherency in the prior art references, the Examiner has failed to articulate any such arguments as is necessary to establish a *prima facie* case. If the Examiner is relying on any obviousness, the Examiner has failed to establish the same along with adequate suggestions and motivations for combining several features defined in the claims. If the Examiner has personal knowledge of prior art, support or evidence of the same should be provided.

In addition, the Examiner pays little regard to additional limitations in other claims, such as claim 2 (“consists of passive components”) (note that Papadopoulos explicitly states that the interface “comprises active and passive circuits” at 2:11), claim 10 (“wherein the first hybrid transformer is rotated 90° out-of-phase with the second hybrid transformer”), claim 15 (“wherein the first hybrid transformer is rotated between 45° – 135° out-of-phase with the second hybrid transformer”), as examples. These limitations all relate to producing a simple low-cost ready-to-use adapter interface. Note that, where provided, the phrase “consists of” should be appropriately construed in a more limiting sense than the term “comprising”.

The Applicant respectfully submits that the reason why these many limitations have not been demonstrated in the prior art in combination with other limitations of the

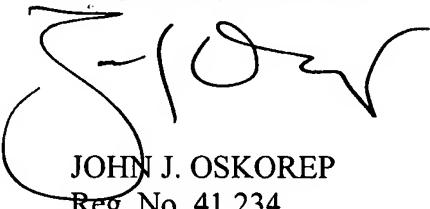
claims is that the prior art fails to teach or suggest the same. The Applicant respectfully submits that the claims are novel and non-obvious over the prior art of record as they relate to the simple low-cost ready-to-use interface adapter.

Other new limitations are now recited in other claims, for example, claim 4 ("wherein the first and the second hybrid transformers have a turns ratio of 1:1.60) and claim 22 ("wherein the impedance matching circuit consists of a resistor having a resistance of about $467\ \Omega$ and a 1% tolerance or less, and the first and the second hybrid transformers have a turns ratio of 1:1.60). The prior art of record also fails to teach or suggest these additional limitations.

The Applicant respectfully requests entry of the present amendment and reconsideration of all pending claims 1-24. Based on the above, the Applicant respectfully submits that all pending claims 1-24 are now allowable over the prior art of record and that the present application is now in a condition suitable for allowance.

Thank you. Please feel free to contact the undersigned if it would expedite the prosecution of the present application.

Respectfully submitted,



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